



**MARYLAND GREEN BUILDING COUNCIL  
MEETING SUMMARY  
LOWE HOUSE OFFICE BUILDING  
24 APRIL 2013**

**Attendees:**

Tom Liebel – MDGBC  
Stephen Gilliss – DGS  
Fiona Burns - DBM  
David St. Jean - MEA  
Anja Caldwell – MDGBC  
Caroline Varney- Alvarado - DHCD  
Matt Power – DGS  
Lauren Buckler – DGS

Meg Andrews - MDOT  
Mimi Wright - MDGBC  
David Costello - MDE  
Joan Kowal - USM  
David Lever - PSCP  
Sean McGuire – DNR  
Laura Armstrong - MDE

I. Chairman Tom Liebel brought the meeting to order. Introductions of all attendees followed. He also noted that David Pratt has left the Council and that Prescott Gaylord, a green building contractor, has been nominated by Secretary Collins to fill the position vacated by David. Hopefully Mr. Gaylord will have been appointed by the next meeting.

II. Chairman Liebel asked for a motion to approve the meeting summary from the previous meeting held 2/27/2013. A motion was made and seconded and the meeting summary was approved.

III. Chairman Liebel started off the review of the IgCC Chapters. The Council goal here is to create a simple supplement to the IgCC that can serve as an alternate compliance path to LEED Silver. As such, compliance with the Council's version of the IgCC would also become a definition of a High Performance Building.

**A. Chapter 3 - Jurisdictional Requirements and Life Cycle Assessment**

1. This chapter is fairly simple and covers only two topics. One is the Jurisdictional Requirements for the use of the code. There is a table of items which may be helpful to use in the future. We can go through it once other chapters have been sorted out.
2. The second part of chapter 3 is the seemingly unrelated Whole Building Life Cycle Assessment. This requirement is particularly onerous and difficult and would be expensive to have done as well. There is also nothing comparable in LEED. For these reasons, Section 303.1 will be stricken from the Council version of the IgCC.

**B. Chapter 4 was skipped over as its study has not been completed by MDE at this time.**

**C. Chapter 5 – Material Resource Conservation and Efficiency**

1. Section 502.1 on construction material management is just good construction practice.
2. Section 503 – Construction Waste Management
  - a. What percentage of construction waste recycling or salvage is reasonable to require? The code calls for 50%. LEED requires 50% as a minimum to get one credit and 75% to gain a second credit.
  - b. Tom said that on his re-use projects it is not uncommon to achieve 80-90%. He believes that a new building could probably do as well and wondered what the average is nationally. Mimi Wright noted that she is having driveway work done

and her contractor related that the recycled concrete rubble material is in high demand.

c. Mimi wondered about a new building requiring demolition of an existing building such as a house. How much of an old house would be able to be recycled? Tom noted that it includes old and new materials and packaging.

d. Joan Kowal asked if we should raise the LEED requirement in the green building program (achieving a minimum of 1 credit is currently required). She wouldn't want items like this to be more rigorous than LEED and push people toward LEED. Tom said the design team can decide whether to exceed the 50% in LEED.

e. Everyone agreed that 75% is reasonably achievable

3. Section 504 - Waste Management and Recycling

a. Requires space in the building for recycling. LEED has this provision for a credit.

b. This also requires a space for storage of used electronic waste requiring special disposal such as fluorescent lamps, batteries and electronics. This can be done in the same space as the recycling space by making that space a little larger.

4. Section 505 – Material Selection covers a lot together.

a. Calls for a building to use 55 percent materials which are used, recycled, recyclable, bio-based or indigenous.

b. May need to do some research on State buildings to see if we've achieved 55%. But we can make it whatever percentage we want. LEED gives out points on separate types of materials where here we have all of them lumped together.

c. Laura Armstrong asked if we should take out recyclable materials. Tom responded that technically, almost every material in a building is recyclable to some extent.

d. Mimi Wright is glad to see the code recognizes the SFI standard for timber products as this includes the American Tree Farm designation which is widely used in Maryland.

5. Section 506 - Lamps

a. This section requires the specification and use of low mercury lamps. LEED NC doesn't contain this but LEED Existing Building has it as a complex formula. Tom likes that the IgCC keeps it simple in requiring maximum milligrams of mercury and that 75% of all lamps comply. This code exempts certain T-8 and T-12 lamps but that we could require it. Tom explained that the T number indicates the tube lamp diameter by 1/8" per number. So a T-12 lamp is 12/8" or 1 1/2" in diameter. Smaller diameter lamps use less mercury.

b. Mimi asked if this addresses LED lamps. Tom noted that there is no mercury in LED lamps.

6. Section 507 covers Building Envelope Moisture Control by requiring commissioning under Section 9.

a. Should this be commissioned or is it just good construction administration practice.

b. Stephen Gilliss noted that he is trying out building envelope commissioning on a new project to begin construction this fall. The HVAC commissioning agent is hiring an architect to do this. \*Note, Stephen checked his project after the meeting and the building envelope commissioning is costing 17% more than LEED enhanced commissioning alone.

c. Anja asked how we make building envelope commissioning less vague. Tom noted that it is described in table 903.1 and basically requires periodic inspections of the different elements of flashing, damp proofing etc.

d. It was noted that it could also be optional because the current LEED does not cover it.

e. David Lever is in favor of it for schools as schools are always concerned with moisture and Indoor Air Quality.

D. Chapter 6 – Energy Conservation, Efficiency, and CO2 Emission Reduction.

1. David St. Jean is the Chair for this section and led the discussion.

2. Many of the Chapter 6 sections have equivalents in the 2012 International Energy Conservation Code (IECC). The 2012 IECC currently adopted by Maryland is 15% more efficient than the 2009 code and 30% more efficient than the 2006 code.

3. Even though we have an efficient Maryland Code, enforcement /inspection is a problem in making sure State owned buildings are complying with the IECC.

4. Tom Liebel noted that State projects only following the 2012 IECC are probably as efficient as LEED 2009 building since that version of LEED is based on the 2009 IECC.

5. The IECC has equivalents which are not in LEED or Energy Star and again, compliance is an issue.

6. We know however that in complying with the IgCC we would be complying with the IECC. We don't know how LEED V4 will step up. Will it use the 2012 IECC as a baseline? It's not expected to be released until 2014.

7. Stephen Gilliss noted that we can raise the minimum LEED points in energy to whatever we believe to be optimum and do-able. We currently require 4 LEED credits which in the current version of LEED is an 18% savings increase.

8. Caroline Varney Alvarado asked who will review projects for compliance...and again that's the big question with the code concept. Currently we are relying on the State registered A/Es to comply with most codes.

9. David St., Jean continued. Chapter 6 is dense and would take too much time to discuss item by item. So he began a summarized view.

a. The section starts with the premise of offering a prescriptive path or a performance path. LEED is mostly a performance path. As an example, a cake baked by the prescriptive path would follow a specific recipe. A performance cake would be baked by a chef who might wander from or improvise the recipe and end up with an equally good cake.

b. The prescriptive path might best be used on smaller buildings while the performance path might be more suited to larger buildings.

c. Chapter 6 also requires the use of renewable energy. Renewables are still costly so is efficiency more effective than renewables? David Lever asked if one could comply by buying off site renewables. Joan Kowal noted that LEED provides a credit for just a 2 year commitment to buying off site renewable energy while the USM is requiring 20 years. Tom Liebel noted that buildings could be required to be renewable ready, that is to provide structure and infrastructure for a future time when the cost of on site renewable energy comes down.

Unfortunately that brings back the capital vs. operating pots of money issue.

The State renewable energy goal is 18% by 2020 and 20% by 2022. Lauren Buckler said that we are on target for 20% by 2022. David St Jean noted this is a statewide, not just State owned goal. Much of the renewable energy is bought from outside utilities.

d. David Lever noted that geothermal energy is not a renewable under LEED but could be under the IgCC. Mimi asked if the State recognizes geothermal as renewable. It does.

e. Tom L. suggested that we could require a percentage of onsite or offsite purchasing. David Lever suggested that a building on a dense urban site may only have the choice to purchase due to site constraints. Tom asked what would be a rational percentage.

- (1) David Costello said we want to incentivize but not too much due to cost.
- (2) Tom L. suggested one percentage for onsite or a higher percentage for off site purchased.
- (3) Joan Kowal suggested 30% more efficient and/or use renewables to allow for flexibility. Efficiency is best followed by renewables.
- (4) David St Jean said the IECC already requires the choice of the three.
- (5) Tom Liebel asked if geothermal will over run solar.
- (6) David Lever noted that HB 103 passed requiring solar to be examined for all new schools in the design development phase. Tom Liebel asked if that was just PV or did it include solar thermal. David said it included solar thermal.
- (7) Tom Liebel asked if the Chapter 6 committee could come back with some recommendations that align with State policy on renewable energy and alternates. Sean McGuire noted that we need to be careful as we align with State policy that future administrations may not have the same policies. Tom agrees but if we set these baselines they shouldn't be less than State policy. We need to set policy without going over the top.
- (8) David resumed discussion with Section 603 on electrical metering. The requirements are really excessive costly to implement and impractical. All agreed however that simply metering individual buildings would be a step forward. Tom Liebel asked if there was a way to at least submeter HVAC separately from lighting. Joan Kowal responded that it would be expensive as it would require at least separate panels for each. Also in some buildings HVAC could be scattered through out a building making it more difficult.. Someone suggested that some of this might be available through the Building Automation System (BAS). Lauren Buckler said that metering is most useful for comparing to or verifying the original energy model so the sub metering is not as useful.
- (9) Section 605 requiring shading devices on certain windows needs further discussion. Does the Council want to affect architectural design in terms of aesthetics. This item needs more discussion. (Editor's note: This could be problematic on buildings which for various reasons need to be designed in a traditional style, something which happens often in Maryland. This could be written as an exception however.)
- (10) David noted that the zEPI performance measurement standard is an issue in that it is new enough that no one seems to be able to explain how it works or how the baseline is established. It could be a great idea but we don't really know. Joan Kowal said that it adds a level of complexity that no one understands. Tom Liebel suggested that we may need to rewrite to tie energy conservation back to some original familiar standard. zEPI could end up like Betamax vs. VHS. It might be better but if no one can use it? Joan noted that kBtu is much more understandable and usable.

E. Tom wanted to touch on highlights of the remaining chapter committees.

1. Sean McGuire asked if 7,500 gsf is still the threshold as DNR has many smaller buildings. The answer is yes.
2. Chapter 7 group has some comments. Testing and disinfection may not be adequate. Tom asked for the comments to be sent out to the Council for all to see.
3. Chapter 8 group has sent out requests for comment from 6 relevant special interest committees. Responses are due April 28, 2013. David Lever has a team working with Anja . The daylighting section is difficult in that the cost impact and reasonable – ness

may be a challenge. Also air quality during construction should just be good construction practice. David noted that good practice can tip Silver to Gold.

IV. Tom opened up the floor for “Once Around the Table”.

A. Caroline Varney Alvarado stated that DHCD is already starting to work on the 2015 code cycle.

B. Matt Power noted that MDP passed a Tax increment financing bill that will allow sustainable communities greater access to revenue streams and allows new uses for TIF's in sustainable communities. The bill is only enabling but gives local governments another tool to incentivize revitalization.

C. David Costello said that MDE has kicked off a composting pilot for food waste at their building though they have no control over the food court area. He said that 27% of the entire solid waste stream is food waste.

D. Stephen Gilliss noted that the high Performance Building Legislation will need to be tweaked to allow the use of the final Council version of the IgCC. He will speak with Secretary Collins to see how he would like to proceed with that.

E. Tom Liebel commented that the sustainable communities tax credit will be coming up for renewal next legislative session, and that we should start thinking about advocacy for the renewal.

He also noted that Baltimore City Schools will be getting billions of dollars and could build 15 new green schools and bring others up to greener standards through renovations.

F. Joan Kowal suggested a field trip to PEPCO's customer service building in Rockville where they have installed the University of Maryland's Solar Decathlon house, Watershed. The buildings won first place in the Department of Energy's 2011 competition, and focused on water re-use as well as energy efficiency and renewable energy.

G. Lauren Buckler said that DGS is looking at composting too but we also don't control the cafeteria.

H. Mimi Wright said that Dorchester County Middle School has a 20 year agreement for solar panels. This was also the first school in the State to use geothermal. She also said that she had a conversation with an electrician who does LEED work and was told that many of the regulations are for individual stick built homes but not as many for factory/modular homes. David St. Jean said he thought it was the opposite and there is more oversight in the factory.

I. David Lever had three items. 1. They've had enthusiastic response to their FY 2013 CIP Energy Efficiency Initiative grants. There are three solar projects in Caroline County, one in Dorchester County, and one school in the City. There are many lighting projects as well as some HVAC projects, yielding impressive deemed energy and green house gas savings. 2. The BPW approved regulations on indoor environment of relocatable classrooms, including by reference Section 801-806 of IgCC Chapter 8. There are over 3,000 of these in use in the State, with a potential maximum occupancy of 66,000 children. 3. Bill Orr will be presenting info on the Collaborative for High Performance Schools (CHPS) at the next Council meeting. The Council may be asked if that could also be an alternate compliance path for schools.

J. Anja asked Council members for any comments on Chapter 8 on indoor air quality.

V. The meeting was adjourned after 12 PM, a rarity. The next meeting location is scheduled for May 22, 2013 at 10 AM in Room 150 of the Lowe House Office Building

The preceding is intended as a summary only of the discussions held on this meeting date. Council members are requested to review the summary and notify the writer of any errors, omissions or unintended misrepresentations of the discussion.